

REMARKS

In the foregoing claim amendments, claims 1, 27-40, 51 and 53-55 have been amended. Now pending in the application are claims 1-55, of which claims 1, 27 and 53-55 are independent. The following comments address all stated grounds for rejection, and the Applicants respectfully submit that the presently pending claims, as identified above, are now in a condition for allowance.

Claim amendments

Applicants have amended independent claims 1, 27 and 53-55 to clarify the scope of the claimed invention. In particular, independent claims 1, 27 and 53-55 have been amended to recite that the command for the control instrument generated from the command interpreter is converted to a command for the control instrument that is recognized in the driver for driving the control instrument. Support for the claim amendments can be found in the figures and throughout the Specification of the pending application. No new matter has been introduced.

Objection to the Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because reference character 44, which is mentioned in the description, is not included in the drawings. Applicants submit that the reference character 44 is included in Figure 2 of the pending application. Applicants therefore request the Examiner reconsider and withdraw the objection to the drawings.

Claim Rejections - 35 U.S.C. §101

Claims 1-53 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. The Examiner notes in the Office Action that claims 1-53 are non-statutory because they can be practiced mentally in conjunction with pen and paper. In the foregoing claim amendments, Applicants have amended claims 1 and 53 to recite an electronic device in which the method is practiced. In light of the claim amendments, Applicants request the Examiner reconsider and withdraw the rejection of claims 1-53 under 35 U.S.C. §101.

Claim Rejections - 35 U.S.C. §112, first paragraph

Claims 1-26 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Examiner notes in the Office Action that the description of the claimed invention in claim 1 does not coincide with the description of the Specification. In the foregoing amendments to the Specification, Applicants have amended the “summary of the invention” portion at page 1 of the pending application to address this issue. Applicants have amended the Specification to address a typographical error and no new matter has been introduced. In light of the amendments to the Specification, Applicants request the Examiner reconsider and withdraw the rejection of claims 1-26 under 35 U.S.C. §112, first paragraph.

Claim Rejections - 35 U.S.C. §112, second paragraph

Claims 1-26 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In the foregoing claim amendments, Applicants have amended claim 1 to address all of the issues raised by the Examiner in the Office Action. In light of the claim amendments, Applicants request the Examiner reconsider and withdraw the rejection of claims 1-26 under 35 U.S.C. §112, second paragraph.

Claim Rejections - 35 U.S.C. §103

Claims 1-9, 11-12, 14-20, 22-35, 40-46 and 48-55 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,926,775 (“Brumley”) in view of U.S. Patent No. 5,627,998 (“Mondrik”). Applicants respectfully traverse this rejection for the following reasons.

Amended independent claim 1 recites a method for communicating with one or more control instruments. A common communication interface communicates with a control instrument via a driver for driving hardware of the control instrument. The common communication interface includes a command interpreter for generating a command for the control instrument *that is not recognized in the driver*. The method enables the command interpreter to communicate with the control instrument independently of an interface bus standard type and an interface hardware driver type by converting the command for the control instrument generated from the command interpreter to a command for the control instrument

that is recognized in the driver. Claims 27 and 55 are system and medium claims that parallel claim 1, respectively. Claims 53 and 54 recite similar limitations.

Applicants submit that the cited prior art references fail to teach or suggest all of the limitations of the claimed invention. Applicants submit that Brumley and Mondrik fail to teach or suggest converting the command for the control instrument generated from the command interpreter to a command for the control instrument that is recognized in the driver, as recited in claim 1.

The Examiner relies primarily upon Brumley in the Office Action. Brumley relates to mini driver software architecture for data acquisition (DAQ). Brumley teaches a DAQ driver level software provided between a DAQ application and a DAQ hardware device. (See, Brumley, Fig. 2). Brumley also teaches that the DAQ driver level software includes a DAQ device object, an interpreter and mini driver primitives. (See, Brumley, Figs. 3 and 4). In Brumley, the interpreter calls one or more primitives to communicate with the DAQ hardware device. (See, Brumley, Fig. 6 and column 6 lines 24-31). Brumley specifically teaches that the primitives perform operations *in response to the calls from the interpreter*. (See, Brumley, Fig. 6 and column 6 lines 31-37).

In contrast, the command interpreter of the claimed invention generates a command for the control instrument *that is not recognized in the driver*. The claimed invention includes the step of converting the command for the control instrument generated from the command interpreter to a command for the control instrument *that is recognized in the driver*. Brumley teaches that the interpreter generates calls to the mini driver primitives, which in turn operate in response to the calls. Brumley teaches that the interpreter generates calls that can be recognized in the mini driver primitives. Brumley does not teach converting the calls generated from the interpreter to the calls that can be recognized in the mini driver primitives.

The Examiner cites Mondrik to provide teachings that the DAQ device is a control instrument. Applicants submit that Mondrik also fails to teach or suggest converting the command for the control instrument generated from the command interpreter to a command for the control instrument that is recognized in the driver, as recited in claim 1. Mondrik relates to

mapping calls to functions in NI-VXI driver level software to a session-based VISA system. In Mondrik, a VISA system can operate in conjunction with an application written for the NI-VXI driver level library. Mondrik, however, does not teach that a command for the control instrument, which is not recognized in the driver for driving the control instrument, to a command for the control instrument that is recognized in the driver, as recited in the claimed invention.

In light of the aforementioned claim amendments and arguments, Applicants respectfully submit that the Brumley and Mondrik fail to teach or suggest all of the limitations of claims 1, 27 and 53-55. Claims 2-9, 11-12, 14-20, 22-26, 28-35, 40-46 and 48-52, which depend upon one of claims 1 and 27, are not rendered obvious over the cited prior art references. Applicants therefore request the Examiner reconsider and withdraw the rejection of claims 1-9, 11-12, 14-20, 22-35, 40-46 and 48-55 under 35 U.S.C. §103(a), and pass the claims to allowance.

Claim Rejections - 35 U.S.C. §103

Claims 10, 13, 21, 36-39 and 47 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,926,775 (“Brumley”) in view of U.S. Patent No. 5,627,998 (“Mondrik”), and further in view of U.S. Patent No. 5,764,546 (“Bryant”). Applicants respectfully traverse this rejection for the following reasons.

Claims 10, 13 and 21 depend upon independent claim 1, and claims 36-39 and 47 upon independent claim 27. The Examiner cites Bryant to provide teachings for the limitations added in the dependent claims.

Applicants submit that Bryant also fails to teach or suggest converting the command for the control instrument generated from the command interpreter to a command for the control instrument that is recognized in the driver, as recited in claim 1. Bryant relates to configuring channels in a data acquisition (DAQ) device. In Bryant, users can create channel configurations which include information for a respective DAQ hardware channel. Bryant, however, does not teach that the command for the control instrument generated from the command interpreter to a command for the control instrument that is recognized in the driver, as recited in the claimed invention.

In light of the aforementioned claim amendments and arguments, Applicants respectfully submit that the Brumley, Mondrik and Bryant fail to teach or suggest all of the limitations of claims 1 and 27. Claims 10, 13, 21, 36-39 and 47, which depend upon one of claims 1 and 27, are not rendered obvious over the cited prior art references. Applicants therefore request the Examiner reconsider and withdraw the rejection of claims 10, 13, 21, 36-39 and 47 under 35 U.S.C. §103(a), and pass the claims to allowance.

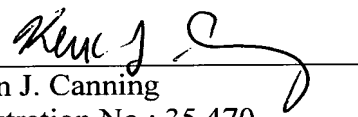
CONCLUSION

In view of the foregoing claim amendments and amendments, Applicants believe the pending application is in condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If, however, the Examiner considers that further obstacles to allowance of these claims persist, we invite a telephone call to Applicants' representative.

Applicants believe no fee is due with this statement. However, if a fee is due, please charge our Deposit Account No. 12-0080, under Order No. MWS-065 from which the undersigned is authorized to draw.

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Respectfully submitted,

By 
Kevin J. Canning
Registration No.: 35,470
LAHIVE & COCKFIELD, LLP
28 State Street
Boston, Massachusetts 02109
(617) 227-7400
(617) 742-4214 (Fax)
Attorney/Agent For Applicants